

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/KR2004/001698

**A. CLASSIFICATION OF SUBJECT MATTER****IPC7 C21B 7/20**

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC7 C21B 7/20, F27B 1/20

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
KOREAN PATENTS AND APPLICATIONS FOR INVENTION SINCE 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
KIPONET

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4,547,116 A (LEGILLE) 15 OCTOBER 1985 See the whole document	1-19
A	US 4,243,351 A (LEGILLE) 6 JANUARY 1981 See the whole document	1-19
A	JP 1996-035006 A (NIPPON STEEL CORP.) 6 FEBRUARY 1996 See the whole document	1-19
A	JP 1988-100114 A (NKK CORP) 2 MAY 1988 See the whole document	1-19

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search

28 OCTOBER 2004 (28.10.2004)

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**29 OCTOBER 2004 (29.10.2004)**

Name and mailing address of the ISA/KR



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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

PCT/KR2004/001698

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4,547,116 A	1985-10-15	EP 0062769 B1 JP 1982-166472 A2 DE 3262092 C0 CA 1173241 A1	1985-01-30 1982-10-13 1985-03-14 1984-08-28
US 4,243,351 A	1981-01-06	JP 1979-006802 A2 DE 2825718 C2 FR 2394771 A1	1979-01-19 1987-01-15 1979-01-12
JP 1996-035006 A	1996-02-06	NONE	
JP 1988-100114 A	1988-05-02	NONE	